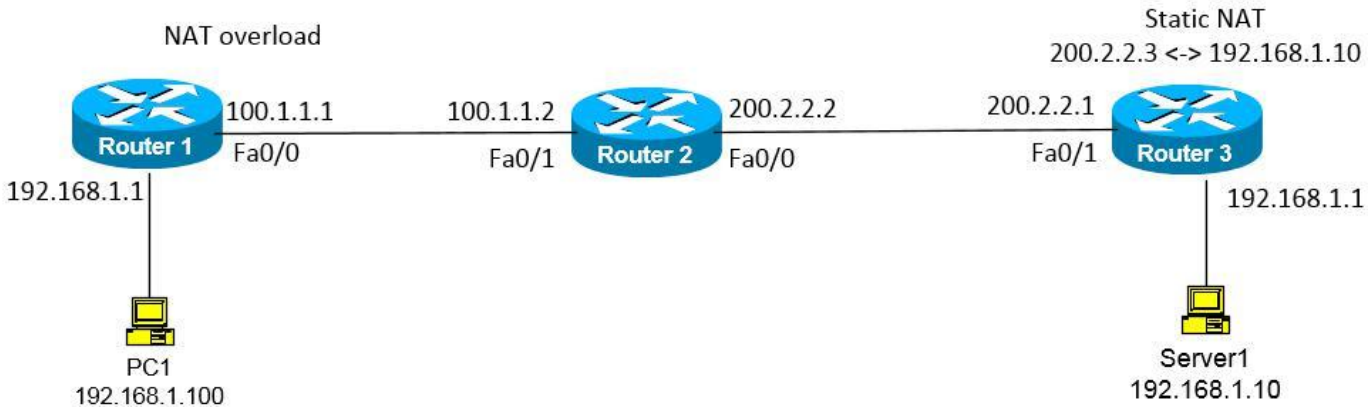
CS4471 Lab Assignment 8
NAT (Network Address Translation) (version 1.0)

Use Cisco Packet Tracer program to create the network shown below
- configure the hostnames as shown for all five devices
- configure IP address and subnet mask of five devices as shown. Subnet mask should be 255.255.255.0
- interconnect the five devices with appropriate Ethernet cables and verify that all four links are up



1. (20 pts) Submit screenshot of Cisco Packet Tracer network diagram created. Make sure that the port labels are shown (Options->Preferences->Show Port Labels)

2. (20 pts) Configure NAT overload on Router1 to translate IP address of inside network 192.168.1.0/24 to IP address of outside interface 100.1.1.1.1. From PC1, verify that you can ping Router2's IP address 100.1.1.2. Submit output of command "show ip nat translate" executed on CLI (command line interface) of Router1

3. (20 pts) Configure static NAT on Router3 to translate server1 IP address 192.168.10 to 200.2.2.3. From Server1, verify that you can ping Router2's IP address 200.2.2.2. Submit output of command "show ip nat translate" executed on CLI (command line interface) of Router3

4. (10 pts)

a. On PC1, verify that you can ping 200.2.2.1. What static route needs to be configured on Router3 in order for the ping to be successful?

b. On Server1, verify that you can ping 100.1.1.1. What static route needs to be configured on Router1 in order for the ping to be successful?

5. (20 Pts) On server1, verify that web service is turned on. On PC1, verify that you can ping 200.2.2.3. On PC1, point the web browser to http://200.2.2.3 .
   a. Submit a screenshot of the result displayed on the web browser.
   b. Submit output of command "show ip nat translate" executed on CLI (command line interface) of Router1

6. (10 pts) submit printout of output of "show running-config" from CLI of each router.